

CD4 Monoclonal Antibody (RM4-5), Super Bright™ 645, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), Super Bright™ 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	RM4-5
Conjugate	Super Bright™ 645
Excitation/Emission Max	414/645 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2662401

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	8 Publications
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Immunocytochemistry (ICC/IF)	-	3 Publications
Flow Cytometry (Flow)	0.25 µg/test	55 Publications

Product Specific Information

Description: The RM4-5 monoclonal antibody reacts with the mouse CD4 molecule, a 55 kDa cell surface receptor expressed by a majority of thymocytes, subpopulation of mature T cells and dendritic cells. CD4 binds to MHC class II on the surface of antigen presenting cells and plays an important role both in T cell development and in optimal functioning of mature T cells. In T cells, CD4 associates with protein tyrosine kinase p56lck through its cytoplasmic tail. Binding of RM4-5 is blocked by GK1.5.

Applications Reported: The RM4-5 antibody has been reported for use in flow cytometric analysis.

Applications Tested: The RM4-5 antibody has been tested by flow cytometric analysis of mouse thymocytes and splenocytes. This can be used at less than or equal to 0.25 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend

using a 660/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

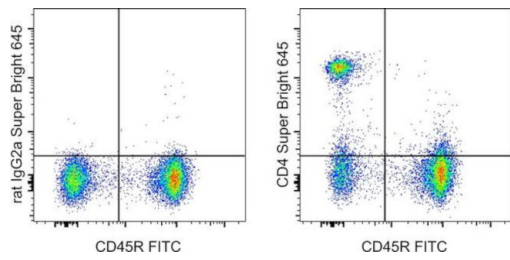
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

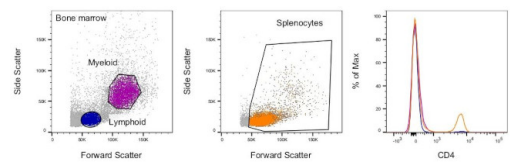
Excitation: 405 nm; Emission: 645 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD4 Monoclonal Antibody (RM4-5), Super Bright™ 645, eBioscience™



CD4 Antibody (64-0042-82) in Flow
Staining of C57BL/6 splenocytes with Anti-Human/Mouse CD45R (B220) FITC (Product # 11-0452-82) and Rat IgG2a K Isotype Control (Product # 64-4321-82) (left) or 0.125 µg of Anti-Mouse CD4 Super Bright 645 (right). Cells in the lymphocyte gate were used for analysis.



CD4 Antibody (64-0042-82)
Staining of mouse splenocytes and bone marrow cells. Right: As expected based on known relative expression patterns, CD4 clone RM4-5 stains a subset of splenocytes and does not stain any bone marrow cells. Details: Balb/c bone marrow cells (left) and splenocytes (middle) were surface stained with CD4 (clone RM4-5) followed by staining with 7-AAD. Viable bone marrow cells in the lymphoid (blue histogram) and myeloid (purple histogram) gates and viable splenocytes (orange histogram) were used for analysis. {RE}

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Immunohistochemistry (8)

<p>Cells</p> <p>Complete Freund's Adjuvant Induces a Fibroblast-like Synoviocytes (FLS) Metabolic and Migratory Phenotype in Resident Fibroblasts of the Inoculated Footpad at the Earliest Stage of Adjuvant-Induced Arthritis.</p> <p>"Published figure using CD4 monoclonal antibody (Product # 64-0042-82) in Immunohistochemistry"</p> <p>Authors: González-Chávez SA,Chaparro-Barrera E,Alvarado-Jáquez MF,Cuevas-Martínez R,Ochoa-Albíztegui RE,Pacheco-Tena C</p>	<p>Year</p> <p>2023</p>
<p>Frontiers in immunology</p> <p>Black raspberry extract inhibits regulatory T-cell activity in a murine model of head and neck squamous cell carcinoma chemoprevention.</p> <p>"Published figure using CD4 monoclonal antibody (Product # 64-0042-82) in Immunohistochemistry"</p> <p>Authors: Ryan NM,Lamenza FF,Upadhaya P,Pracha H,Springer A,Swingler M,Siddiqui A,Oghumu S</p>	<p>Year</p> <p>2022</p>

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Immunohistochemistry (PFA fixed) (1)

<p>Immunity</p> <p>T Cell Recruitment to the Intestinal Stem Cell Compartment Drives Immune-Mediated Intestinal Damage after Allogeneic Transplantation.</p> <p>"Published figure using CD4 monoclonal antibody (Product # 64-0042-82) in Immunocytochemistry"</p> <p>Authors: Fu YY,Egorova A,Sobieski C,Kuttiyara J,Calafiore M,Takashima S,Clevers H,Hanash AM</p>	<p>Year</p> <p>2019</p>
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Immunohistochemistry (Frozen) (1)

<p>Biology</p> <p>Increased Levels of IL-16 in the Central Nervous System during Neuroinflammation Are Associated with Infiltrating Immune Cells and Resident Glial Cells.</p> <p>"Published figure using CD4 monoclonal antibody (Product # 64-0042-82) in Immunohistochemistry (Frozen)"</p> <p>Authors: Hridi SU,Barbour M,Wilson C,Franssen AJ,Harte T,Bushell TJ,Jiang HR</p>	<p>Year</p> <p>2021</p>
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More applications with references on thermofisher.com

- ICC/IF (3)
- Flow (55)

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